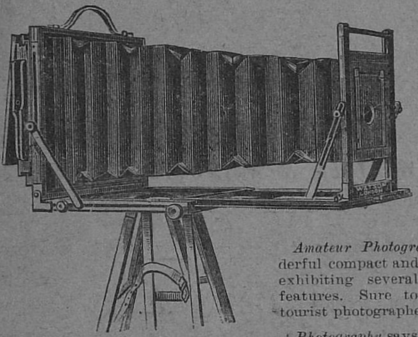
Journal of the Amateur Photographic Society of Madras.

Vol. 3.—No. 5. Price As. 8.

April, 1897.

HIGHEST CLASS PHOTOGRAPHIC INSTRUMENTS.

WATSON'S ACME TOURIST'S CAMERAS & RECTILINEAR LENSES.



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British Journal of Photography says:—"It folds into a smaller compass, and is lighter and more portable than any pattern we have yet seen.

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Camera and three double slides	9	12	0	10	0	0	12	5	0	14	0	0	16	12	6	21	0	0
Rapid Rectilinear Lens with Iris diaphragm	4	0	0	4	10	0	5	0	0	6	15	0	8	15	0	11	10	0
Solid Leather Travelling Case with spring lock ...	1	15	0	1	15	0	2	2	0	2	10	0	3	0	0	3	15	0
Rotating Turntable in base, and Tripod Stand ...	2	2	0	2	2	0	2	2	0	2	10	0	2	15	0	3	3	0
	17	9	0	18	7	0	21	9	0	25	15	0	31	2	6	39	8	0

Aluminium Fittings—Reduced Prices.

½-plate and 7½ x 5	8½ x 6½	10 x 8	12 x 10	15 x 12
£2 10 0	£3 0 0	£3 10 0	£4 0 0	£4 10 0

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£1 10 0	£1 15 0	£2 0 0	£2 10 0	£3 0 0

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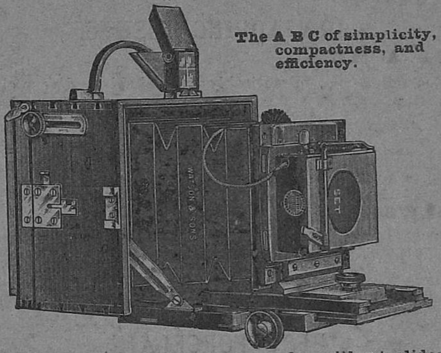

Prices of simple form cameras only, without slides or focus scale:

Made in three sizes

Quarter	5 x 4.	Half-plate.
£1 10 0	£1 15 0	£2 10 0
5¾ x 3 x 5.	6 x 3½ x 5¾.	7¾ x 3½ x 6¾.

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Cameras made to special sizes to suit individual lenses or slides, at slightly enhanced cost, according to the extra work involved.

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Camera and three double slides ...	3	15	0	4	6	0	5	10	0
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Exposure shutter	1	0	0	1	0	0	1	0	0
Finder	0	10	6	0	10	6	0	10	6
Travelling case	0	12	0	0	15	0	1	0	0
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The following extras can be supplied:

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Compound Baseboard, with Rack and Pinion, giving long range of focus, £1-10-0.

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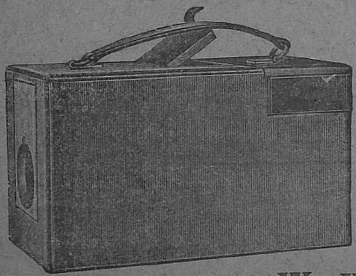

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"THE ACME"—

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Ammonia	... ...	0	6
Toning	... ...	0	14

Chloride of Gold	$7\frac{1}{2}$ grs. ...	1	4
Do.	15 „ ...	2	8
Hyposulphite	... per lb. ...	0	5
Pyrogallic acid	... per oz. ...	1	10
Hydroquinone	... „ ...	2	0

&c. &c. &c.

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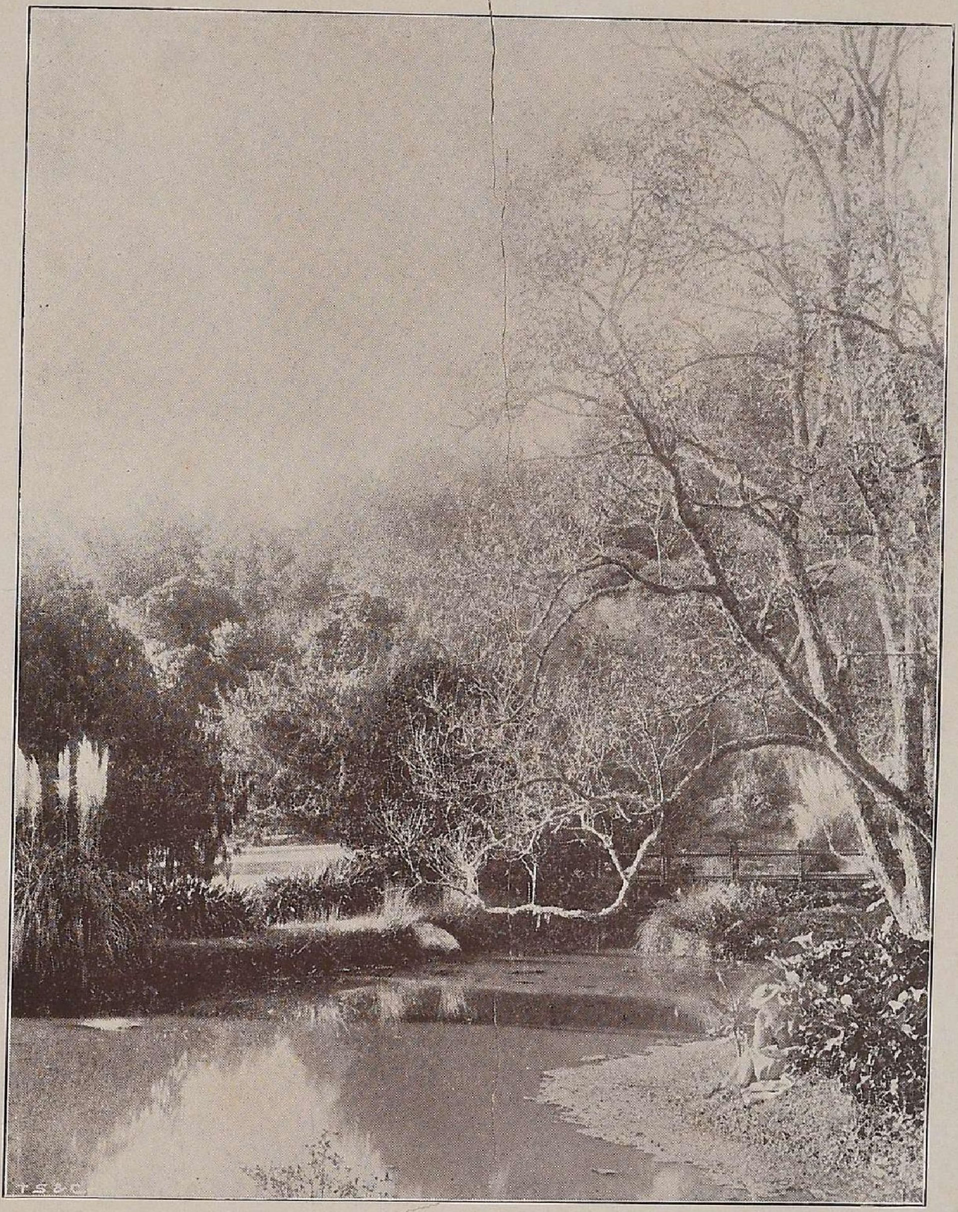

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AN AUTUMN EVENING.

Vol. III. No. 5. **April, 1897.**

Journal of the Amateur Photographic Society of Madras.

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CONTENTS.

	Page.
EDITORIAL NOTES—The Bichromated gum Process of printing—A Vertical copying arrangement—A new Dallmeyer Lens—A Technical Exhibition—Colour Photography—Our Illustration—The Honorary Secretary's Notice ...	49
FOIBLES OF THE AMATEUR, II.	53
OUR HOME LETTER	54
PROCEEDINGS OF THE SOCIETY ...	55
EXTRACT—The Artigue method of carbon Printing	57
CRITICISM OF MONTHLY EXHIBITS FOR MARCH	59
RULES FOR COMPETITIONS	60

EDITORIAL NOTES.

THE carbon printing process is one which has not caught on in this country, principally no doubt on account of the difficulty of getting the "tissue" in sound condition and of the familiar difficulties of handling delicate gelatine tissue in this climate without its giving way altogether, especially during the warm months. Although good carbon prints could be made without transfer, it was not until recently that the practice had been adopted with success. A few years ago, Mr. Maskell, the Honorary Secretary of the London Salon, exhibited some pictures printed on paper coated with bichromate of potash, gum, and pigment. They attracted much attention at the time and it was wondered why anyone should revert to the days of the infancy of carbon or pigment-printing, ignoring the vast improvements in material and methods which had since been developed. But artistic photography has recently advanced in such a way that some workers in their endeavour to stamp their productions with their personality have broken away from the trammels of the usual methods, and have sought and found what they wanted in some simple processes of the past. We believe that it is to Mr. Maskell that the credit belongs of rescuing the bichromated gum process and first showing, in England at any rate, the possibilities of the process in an artist's hands. The recent modification and improvement of the process is due to M. Artigue of Bordeaux and it is now spoken of after his name. The Artigue paper, already coated with pigment, can be bought and sensitised with bichromate, but the sensitising and the developing have to be done at a temperature below 60°F. By employing iced-water the temperature difficulty can be got over, but the paper is said to be expensive to buy, and there seems to be no reason why any one should not prepare his own paper. There would appear to be some little difficulty at first in coating and developing the paper; but what printing process is without its difficulties? The cost of the materials required is very small.

We have extracted into this issue an article from the *Practical Photographer*, and a portion of an article from our Indian contemporary, the *Journal of the Photographic Society of India* both of which contain very practical instructions regarding the bichromated gum method. If any of our members are tempted to try it, we shall be glad if samples of the results are sent to be shown at a monthly meeting of the society.

WE have sometimes felt the need of some simple arrangement, which could be easily set up, for copying objects laid flat upon a table, and probably some of our members also will be glad to get a tip on the subject. We take the liberty of transcribing a portion of Mr. Matthew Surface's article in the *Practical Photographer*, in which he describes several easy methods of vertical copying :—

"Take a piece of firm deal or pine from 26 to 30 inches long, 2 to 3 inches deep, and from $\frac{3}{8}$ to $\frac{1}{2}$ inch in thickness. Midway between the two ends bore a small hole to allow the tripod screw to pass easily through, so that the camera may be fastened in position firmly. The next operation is to screw securely at each side of each end of the long rod a block of rectangular wood, 6 by 4 by 2, four blocks in all. The whole contrivance is then placed on two chairs, and elevated to the proper height by means of books. The object of the end pieces is to keep the apparatus from movement, and this is more effectively accomplished if some weighty object is placed on the top of all at each end after the camera has been fixed in position and levelled by aid of a spirit level. It may be mentioned that theoretically the rod would be better if more than half an inch in thickness, but in practice the majority of tripod screws are not long enough to extend further than half an inch and securely grip the camera.

The best way to work the arrangement is to sit on a chair, and instead of a focussing cloth use a small cylinder of paper or card-board, about five or six inches high, so as to avoid ruffling the hair or letting the cloth fall on the objects below. Accurate focussing can be done with a magnifier. The camera once fixed at the right height, is not moved, but the objects below, on a board or sheet of brown paper, are shifted until the right position is arrived at.

Here then, is a simple method of vertical copying. Those who have been accustomed to conduct operations with a horizontal arrangement will find the vertical method better and easier for a great many things, as for instance coins, mineral specimens, fossils, many natural history objects, flowers, grasses, leaves, plants pages from books and a hundred-and-one other objects. Those who seek for an interesting branch of photography which can conveniently be practised in the winter months at nights if desired by means of flash-light or better still, an incandescent gas burner, will find great scope in this method of copying."

LENS construction and its improvement have of late years been a good deal in the hands of German opticians, and this is not to be wondered at when it is remembered that everything scientific and technical receives State aid in Germany. Optical glass manufacture in Germany has been giving to the world new qualities of glass by the employment of which rays of light can be bent in a way which was hardly dreamt of by past mathematical opticians. The newer lenses of Zeiss and of Goerz are famous for their many excellent qualities. A lens which it is claimed will compare favourably with any of its predecessors, and one devised and made in England, was last month brought to the notice of the R. P. S. by Mr. Dallmeyer. It was the result of investigations by his colleague, Mr. Aldis, and was said to be a distinct advance in photographic optics. Like the German lenses named it is free from spherical aberration and from astigmatism ; but it passes more light and works at greater intensity than any of the lenses hitherto made for the same purpose. "The lens will cover at $f/6$ and with microscopic accuracy a plate the next size larger than that for which it is constructed." A half plate lens at $f/16$ covered with perfect definition a 12 × 10 plate. Another advantage is that "the front combination may be used as a single lens for the plate for which it is designed, and has a focus of only half as much again as the entire combination." The cost it is stated will be moderate.

THE Royal Photographic Society is going to hold an exhibition of Technical Photography in the spring. The friction and antagonism which arose between the R. P. S. and the "Linked Ring" led the former in recent years to emulate the example of the latter in the encouragement of purely pictorial photography. In doing so there seemed to be a risk of dis-

couraging the purely technical and scientific and the trade aspects of photography. The last *Pall Mall* Exhibition was, to judge from all accounts, almost entirely devoted to pictorial photography, while the scientific, photo-mechanical, and other exhibits composed only a small section of the exhibition. It seems right and proper that the Royal Society should foster all branches of the art, and they have wisely decided at last to hold separate exhibitions and in this way to strengthen their position in relation to all sections of work, instead of confining their patronage to one only. The bitterness of the journalistic struggles in some quarters seems to have abated somewhat, and there are signs of things settling down into an amicable working order of affairs. This is as it should be, and photography will be all the better for it.

SIR Henry Trueman Wood, in bringing before the Society of Arts the latest thing in photographic reproduction of colors, summarised the whole question of colour-photography, described the various methods and exhibited the results achieved by the different processes. The new process of M. Chassagne remains a mystery, the composition of the different solutions employed by him being kept secret. We gave in our last issue particulars of all that was publicly known about the method, and there is as yet nothing further to add to them. The results, in the opinion of competent judges, are like coloured photographs, but there is no hand colouring, the solutions employed being the agents which automatically impart the colours in their proper places on the positives. But even more striking than M. Chassagne's pictures were said to be the exhibits of Mr. Bennetto, of Newquay, in Cornwall. For some time there has been a great deal of scepticism displayed by the British photograhic press as to Mr. Bennetto's discovery; and a good deal of smart writing was indulged in because Mr. Bennetto declined to show and to explain his results under conditions which did not suit him. His results were shown to a limited number of photographers who pronounced them to be most successful, but the press generally remained sceptical. His methods and principles are intended to remain a secret until more details are worked out and the applications of the process are extended. The patent rights we understand are in the hands of a syndicate. At the same time he was willing to answer any reasonable questions at the demonstration which he gave at the Camera Club. The colours were produced by the action of light, and, he added, that he would soon be in a position to produce enlargements that are as perfect as the small prints. The correct reproduction of the colours depended, he said, on correct exposure, and so did the printing method.

The following is an abridgement of an account of Mr. Bennetto's exhibition which appeared in *The Times*:—

"All that is at present known is that the inventor, who has been occupied with the subject for the last eight years, claims to have discovered the first true and direct system of colour-photography by which can be transferred to a photographic negative, and thence printed on glass or paper, the exact natural colours of the object towards which the camera has been directed. He employs no pigments, his plates have not to be washed with various coloured solutions, and it is not necessary to view his pictures through any combination of tinted glasses. The colours are imprinted on the plate just as are the light and shade in an ordinary monochrome photograph, and are directly visible to the eye, without any subsidiary apparatus. It may be mentioned that Mr. Bennetto in his earliest experiments could get no effects with a less exposure than three minutes and now he is able to work with exposures of 16 seconds.

In strictness, of course, it is not possible to know for certain that a particular result is produced by a particular process unless the nature of that process is also known, and from that point of view it is perhaps allowable to regard Mr. Bennetto's pictures with some degree of philosophical suspicion. But he has been put to tests which it is difficult to suppose he could have satisfied did he not in fact do what he claims to do. He was requested to focus his apparatus on an easel. When he had done so, he was blindfolded and on the easel was placed an impossible picture, painted in impossible colours, which he had never seen before. This he photographed and developed, still without seeing the original, with the result that the impossible colours were reproduced in the photograph obtained, although they were, in Mr. Bennetto's own phrase, somewhat "degraded,"

owing to sufficient exposure not having been given.

Whatever may have been the methods used, the pictures produced by them attain a high standard of excellence. One of the best specimens shown was a study of a sunrise, taken early one morning in the middle of June, 1895, in which the fiery orange of the dawn and the heavy masses of cloud were admirably represented. The clouds, again, were excellent in a typical picture of Cornish seashore scenery, and the tints of the sand and rocks and their reflections in the pools were faithfully reproduced. In the case of a rock picture with wonderfully brilliant colouring, it was stated that, when the glass plate on which it was printed was examined under a microscope, not only could each individual mussel on the rocks in the foreground be clearly discerned, but that even the iridescent colours on their shells were plainly distinguishable.

Perhaps the picture which best illustrated the capabilities of the process was one of a champagne bottle standing on a white tablecloth and surrounded with various fruits. Here there were three or four different whites which were all distinguishable but which it would probably have taxed the powers of any artist to represent by painting. The gold-foil on the bottle was exactly rendered and it was possible to tell that it was full by the gleam of the liquid. The inventor looks forward among other things, to revolutionising by his process the illustration of books and magazines, and hopes to show in the future how to flash a picture on a screen so that a permanent copy may be left behind."

As Captain Abney says in an article in *Photography*: We seem to be on the threshold of some really practical and practicable process for colour photography. There is something in the air, and a process which will be fairly perfect cannot be long in coming.

OUR illustration is from a negative by Surgeon-Major E. P. Youngerman, to whose picture of "An Autumn evening" a silver medal was awarded at the last half-yearly competition of the Society. He has kindly furnished the following note regarding his picture :—

"Ordinary plate—weak pyro-Soda developer—exposure 4 seconds—time, November afternoon—4 P.M.—place, Government Gardens, Ootacamund—lens, Ross-Goerz, *double anastigmat*, *f*/16.

The sky negative was taken from the verandah of this house, and similarly developed.

The details of the picture (such as they are) and the lighting were worked out on the previous afternoon.

The tone of the print is adapted to the subject, but not for indiscriminate use. It may be obtained by the ordinary platinum toning bath on paper sized with arrowroot (*vide* Lyonel Clark's book). I find the home-made article superior to the commercial, *i.e.*, for any one who has the time and inclination for a rather messy job! With platinum, the range of tone is greater, and the image bolder, (if I may use the term) on home-made paper carefully sized and with plenty of silver. The bath, however, I find somewhat uncertain,—only experience can tell when to stop the toning for any desired result."

It will be observed that the exhibitor previously "worked out" the details of his picture before he set out to take it, that he then secured a suitable cloud negative, chose a suitable colour tone in which t · print, and then, by suitable modifications introduced to secure his end in view, reproduced his ideals in the picture which secured for him the highest distinction which this society can confer upon its competing members. Conscientious and thorough work such as this is bound to succeed, and we commend his method to other members. It is better to turn out one or two really good pictures in the year than dozens of the "usual thing." We are not all of us masters of technique, and without technical skill pictorial reproduction is impossible, except perhaps by a fluke once in a way, and beginners must of course turn out the dozens—and the more dozens the better—until they can feel sure of their way to produce the best work. But even beginners cannot too early cultivate the method of previously inspecting the scene and thinking out, or "working out" as Dr. Youngerman says, his pictures.

We can only express our sincere regret at "the expression" of the picture being quite lost in the reproduction. Those who saw the original cannot fail to join with us in this regret.

WE gladly give prominence to the following:—

NOTICE.

The Hon. Secretary will be glad if members, in writing to him, would address him *by name*; there have been so many Secretaries of late that it is not to be expected that the Postal authorities can keep pace with recent changes. Letters, &c., should also be addressed to Royapuram, Madras, not Madras only.

The Hon. Secretary trusts that everything will be in order within the month of April and that thereafter there will be no delay in the issue of Library books, &c.

F. DUNSTERVILLE,
Hon. Secretary.

FOIBLES OF THE AMATEUR.

II.

A hobby like photography
  Demands a balanced mind,
A subtle touch, a nerve that's free
  And eyes that are not blind;
Else sundry failings will appear
  That seem both puerile and queer,
And though you ask the 'why', I fear
  No answer will you find.

* * * * *

Why doth the novice tremble so
  Within the darkened room?
Why doth he hold his breath, as though
  He feared some awful doom?
His fingers like an aspen shake,
  Lest they a masterpiece should break:
You'd think his very life at stake
  So settled is his gloom.

Why such an earnest knitted brow,
  So wanting in repose
That drops of perspiration now
  Come trickling down his nose?
He looks like being very sick,
  (Luck send no slide may catch or stick,
No plate, from being over thick,
  To culminate his woes).

I fear I can't explain the why
  And wherefore of the thing—
The marked distress, the 'hunted eye',
  The reason taking wing.
Beginners mostly feel the same
  When seeking photographic fame—
A weakness none will surely blame,
  This foible that I sing.

Go question the examinee
  Who has no appetite,
Or ask the budding young M. P.
  His maiden speech in sight,
Limp 'middies' whom the billows mock,
  Raw soldiers in the battle shock,
The débutante in smartest frock—
  Ask any neophyte!

* * * * *

When lovely faces flash in vain
  Across the artist's view,
And all neglected they remain,
  As flowers the prairie strew;
Why lacks he then the nerve—the cheek—
  That nameless quality— to speak,
And claim a sitting once a week,
  To Art a tribute due?

When street, with motley mixed mankind,
  And market-place, are filled,
Where all emotions he may find,
  And human traits, distilled;
Why rests his camera supine,
  When chance and everything combine
To give a snap-shot wonderous fine,
  If so the artist willed?

When heaven and earth with beauty teem
  In moments rich and rare,
When Paradise itself would seem
  To hover in the air;
Why doth the amateur withhold,
  Until the scene is dead and cold,
His hand—instead of being bold
  A picture great to dare?

Ask all who shirk (with bliss in view)
  The oracle to start:
Go, ask the love-sick laggard, who
  Is stung by Cupid's dart,
Why courage oozes drop by drop,
  Why dumbly he his brow doth mop,
And ever hesitates to 'pop'
  'The question' of his heart!

* * * * *

Perchance, if these or those you ask,
  An answer may be found
What 'tis that magnifies their task
  And keeps them fetter-bound,
This something wanting in their make.
  This quality they don't partake
That lets them commonsense forsake,
  And all their wits impound.

The lack of this unknown—this *x*
  ('Tis nerve some people say—
Supposed to mark the sterner sex
  From those of weaker clay)
Keeps amateurs to ruts well-worn,
  Leaves many a work of art unborn
That might photography adorn,
  And drives success away.

C. S. M.

OUR HOME LETTER.

February 1897.

Like Kipling's "Soldier and Sailor too," the true photographer's work "begins at Gawd knows when, and is never through." The more he gets interested in the subject, the wider extends the horizon, until it includes not only photography pure and simple, which indeed in itself is enough to satisfy any man, but a hundred other subjects also, so that peace of mind is rapidly dispersed unless he is capable of forming a definite programme, and of adhering rigidly to it, taking care not to slip into the innumerable by-paths which intersect and lead out of the main road which he has determined to follow.

It is good advice, though I cannot remember who gave it, to know a little of everything, and a good deal of some one thing, advice which applies to every sphere in this world, and especially to photography. To put it more definitely, the aim should be to have a general acquaintance with the principles and practice of photography as a whole, and to take up some one branch of it in particular with the object of becoming expert in that branch. If this advice were more generally put into practice, progress in photography both in artistic and scientific directions would be more rapid and regular, while the ever-present example of five or ten years' dabbling with nothing to show at the end of it but an accumulation of useless negatives, would be wanting.

But, however well the embryo photographer may map out his course, and however wisely he may adhere to the road described, his labours will be seriously discounted unless he introduces system and method into his performances. The note book should be an inseparable companion both in the field and in the laboratory, likewise during the perusal of photographic literature, in order that Captain Cuttle's axiom of "when found make a note of" may be carried out to its logical extreme. But few are gifted with so extraordinary a memory that they can afford to ignore the note book, nor is it necessary, even if possible, to load the mind with that cargo of facts which every practical photographer ought to have by him. The right idea is to carry mainly principles in the mind, and a knowledge of where facts required are to be found.

The truth of this was thrust upon me with great force in the course of a recent conversation with one of our well-known literary photographers, whose name I will not mention now since I have written a short account of his life and work which will appear before long in the pages of "The Practical Photographer." I will only say, however, that his precise and continuous methods of note-taking carried on persistently for many years have placed him now in the fortunate position of being able in a moment to put his hand on a series of references to all the important information which has been written during that period relating to the subjects in which he is particularly interested, and they are numerous. He has literally a storehouse of knowledge ready for immediate use. The drawer, where the note books and packages of cuttings and extracts are kept, might fitly be labelled "Enquire within upon everything."

But you will be thinking that this letter is devoted to preaching rather than to an account of the latest important events or discoveries at home here, so I will bring this little sermon to a conclusion, and give you the latest news. There is a good deal of talk about photography in colours again. A certain Cornwall photographer has discovered something, no one knows exactly what as yet, which he has sold to a syndicate, who will, when all the patents have been taken out, lay the methods before the public. It is too soon yet to judge the merits of the case.

Another process emanates from Paris, the invention of M. Villedieu Chassagne, by which photographs can be produced showing very closely the actual colours of the objects photographed. A negative is taken on a gelatine plate, which has been treated with a solution of certain salts. The nature of the solutions used—presumably to modify the monochromic colour-values—is for the present kept secret. The negative is developed and fixed in the ordinary way, and when finished looks like any other negative. From it a positive is printed on sensitized paper or on a gelatine film (if a transparency is desired), plate or paper having previously been treated with the unknown solution. The positive looks exactly like an ordinary photographic print or transparency, and shows no trace of colour. It is then washed over with three coloured solutions, blue, green, and red and it takes up in succession the appropriate colour in the appropriate parts, the combinations of the colours giving all varieties of tint. Thus, in a landscape the trees are in various hues of green, the sky becomes blue, the flowers show proper colours, the bricks and tiles of the houses are red, and so on. In a portrait the flesh tints come out well, and the different colours of the costume are accurately given. The general appearance of the picture is that of a coloured photograph. Looked at from a distance it would be taken for one. Inspected under a high magnifying power it is seen that the colours follow the details in a manner hardly possible for hand-work. It will be seen therefore that the process is a comparatively simple and inexpensive one, but whether it is practicable commercially or otherwise than in the laboratory of the experimenter cannot be decided without further experience.

The use of acetylene is steadily progressing. No more accidents have occurred recently, and now that the scare is over, and the dangers better understood, it seems quite likely that every amateur who uses a lantern will provide himself with a generator, and dispense with the more troublesome oxy-hydrogen light. Acetylene is also being adopted as an illuminant for various other purposes. The German Government have voted 50,000 marks to the Minister of Education to be devoted to investigations and experiments in connection with the Röntgen Rays. This action is consistent with the policy of Germany towards science and education generally, and it is a policy

which England might well follow in a more marked degree. It is proposed to hold an Exhibition on the lines of the Salon in New York.

March 1897.

I mentioned last month two discoveries which had been made, relative to the production of photographs in natural colours. The two discoveries referred to are respectively the work of a Cornishman, Mr. Wallace Bennetto of Newquay, and a Frenchman, M. Chassagne of Paris. Although both these inventors have exhibited the results obtained by their processes before several different societies, as yet the details remain a secret; and although so far as one may judge the discoveries are genuine and are a very marked advance on anything produced in this direction previously, it is impossible, at the present stage of proceedings, to estimate their value either scientifically or commercially. All one can do is to wait patiently, and we are told, when the patents have all been secured, and further experiments brought to a satisfactory issue, the whole *rationale* of the processes will be laid before the public. Photography in natural colours then seems likely to become *un fait accompli* before very long.

Some interesting facts about the speed of shutters as placed by some makers on the market have been set forth by W. K. Burton in "Photography." He found when experimenting with a great many different shutters that scarcely a single one gave that exposure to which its indicator pointed. In the majority of cases the exposures were longer than they were supposed to be, while in only one case where a shutter professed to give an exposure as short as the $\frac{1}{100}$ of a second was the actual exposure as short as this. In the case of a hand camera on the shutter of which the figures $\frac{1}{10}$, $\frac{1}{30}$, $\frac{1}{50}$, $\frac{1}{100}$, of a second were marked, the $\frac{1}{100}$ of a second was found to be as nearly as possible $\frac{1}{40}$ of a second, while all the others were uniform, and about $\frac{1}{20}$ of a second. Hence it is very desirable to have the speed of one's shutters tested. In a hand camera, which I recently purchased, the longest exposure which it professes to give is $\frac{1}{5}$ of a second, but by comparing it with another shutter upon which I can more confidently rely, I find that instead of $\frac{1}{5}$, the exposure is about $\frac{1}{15}$.

The work of photographic surveying seems likely to receive a greater share of the attention of photograhic clubs than it has done. That it should be so is exceedingly desirable, for there can be no doubt that as a mere recorder of fact, photography is extremely valuable, and this application of its processes is almost as important as its higher artistic development. Several contributions in "The Practical Photographer" for April are worth attention in this connection, as they deal with the possibilities and practice of ordinary topographical photographic surveying, and also with photography as an aid to geological surveying. While there are many clubs and societies both at home and abroad, they are, to far too great an extent, mere associations of men having a hobby common to them all, and the opportunities of uniting for the benefit of scientific or artistic progress are quite lost sight of. Photographic surveying may be regarded as useful work, which can be undertaken by those who have no faculty for picture making, or for pursuing investigations in the chemistry of photography.

A blow has been given to the use of acetylene, at any rate by amateurs, in consequence of a decree by the Home Office making it necessary to secure a license in order to keep carbide of calcium. This order comes into force on the 1st of April next.

A correspondent writing to a contemporary says, that on shipboard he washes his prints with sea water, by throwing them overboard in a pail or tub, secured by a strong rope and letting them "tow along" thus for a certain time, afterwards rinsing them with fresh water, and, lastly, with 50 per cent. alcohol, after which they dry rapidly.

The following is a useful plan of marking dark slides with the exposure, so that the note book need not be taken out so frequently. Make a solution or emulsion of—

Gelatine...	180 grains.
Kaolin	30 „
Bichromate of potass	10 „
Water	1 ounce.

Coat ordinary writing paper, previously damped in water, with this, and when dry cut into slips the length, or half the length, of the slide and paste a piece on each slide. These slips can be written on with lead pencil, and the writing erased as often as required. It is as well to attach the pencil to some part of the camera.

MATTHEW SURFACE.

PROCEEDINGS OF THE SOCIETY.

Monthly Meeting held at the Masonic Hall, Mount Road.

Friday, 2nd April 1897.

Mr. C. Michie Smith, *in the chair.*

The minutes of the last meeting having been printed and circulated in the Journal were taken as read and were confirmed.

Mr. J. W. Chambers proposed that Mr. C. Michie Smith be elected President in place of Mr. Dunsterville, who had accepted the Secretaryship. The proposal was seconded by Mr. Phipps and carried unanimously.

Mr. W. A. Willock, was unanimously elected Vice-President in place of Mr. Michie Smith. The proposal was made by Mr. Michie Smith and seconded by Dr. VanGeyzel. Mr. Willock was also elected judge in place of Mr. Dunsterville, and Mr S. Jackson as additional judge in place of Mr. E. W. Stoney who has gone home.

New Members.

The following gentlemen were elected members of the Society:—

Mr. Arthur Pilkington—proposed by Mr. Dunsterville, seconded by Dr. VanGeyzel.

Lieut. C. Giffard—proposed by Dr. VanGeyzel, seconded by General Wardrop.

The Honorary Secretary announced that Mr. G. A. Chambers (whose resignation was reported at the last meeting) had withdrawn his resignation and expressed a wish to remain a member of the Society. This was ordered to be recorded.

The Question Box.

1. According to the Ilford formula, I made up developing solution No. 1 as follows: I added 1 oz. of pyro. to 6 oz. of water, and after the pyro. was dissolved I added 20 minims of nitric acid. After a time a blackish cloudy dust began to fall in the solution. How can this be avoided?

Add nitric acid to the water first and pour this acidulated water on the pyro.

2. I find that the toning formula recommended by the makers for P. O. P. does not work well, and that the prints become bluey-red. A friend recommended a great deal less sulpho-cyanide and a great deal more gold in the bath, which I found very successful. Can you give me another formula? Will the toning solution keep long?

All prints turn very yellow or orange in the sulpho-cyanide bath at first and must be judged by *looking through* the print. When a trace of warmth (red color) is still visible in the darkest parts the print should be removed from the toning bath. If successful with the new bath, why go further and perhaps fare worse? As you wish for another formula, here is one for a toning solution for all chloride papers;—

Gold chloride	1 grain.
Phosphate of soda	20 grains.
Water	8 to 10 oz.

Use in half an hour after making and throw away after use. It is not advisable in this country to use a toning bath more than once.

3. I have got two sky-lights of red glass in my dark room; and the sun light enters the room through the red glass. Will this do any harm to plates, &c.?

Direct sun-light on dark room windows is objectionable and should be avoided by a screen or blind.

4. What quantity of alum is dissolved in an ounce of a saturated solution?

About 45 grains at ordinary temperature.

Pictures for the Day.

Prints of a "Bicycle in motion" were submitted by Mrs. McNair, General Wardrop, Mr. J. W. Chambers, H.H. The Eliya Rajah of Travancore, and the Honorary Secretary, the last named being "not for competition."

Criticisms will appear in the next journal after the pictures have been inspected by the Judges.

Next Meeting.

The *Picture Subject* for exhibition at the meeting on 7th May prox. is "A Native Conveyance," and for the June Meeting "A Horse."

At the May meeting, members are requested to bring with them for comparison the best negative they possess with a print from the same. Up-country members are desired to send what they consider the best print (from a purely technical point of view) they have got.

Members are requested to bring or send details as to make of plate, exposure and stop, developer, &c., &c.

Miscellaneous.

The President showed some negatives upon which appeared certain markings. He explained that after exposing these plates, he had packed them away with a sheet of clean white paper in between each pair of plates, the paper was much smaller than the plates and the negatives showed very distinctly the edges of the pieces of paper, the result being that they were practically spoiled altogether. He also showed a photograph of the half moon taken at Paris—the clearest and best photograph of the moon that any one present had ever seen—and two star photographs, size of each about 15″ × 12″ taken with the Bruce Photographic Telescope, and one large print—Plate No. 1 of an Atlas of the moon now being made at the Lick Observatory.

The Secretary showed negatives on some new specially rapid plates, said to be made for tropical climates. They had been opened in the dark, put into slides and exposed for as near as possible the correct time for their H and D number and the results were most disappointing. The films were apparently hardened to such an extent that they repelled the developer and the image did not come up to proper density even after three times the ordinary period. Wat-r at normal temperature was used for the first two plates, but the film frilled; iced water was therefore used for the third exposed plate, the result being that the film frilled worse than ever. Finally, a plate that had never seen light was put into a dish in the dark and a full strength developer (as per makers' formula) poured on and rocked for two minutes, washed and put in clean hypo, washed and dried; the result was a hopelessly fogged plate! Other plates exposed and developed at the same time were quite good.

The Secretary showed some bad prints on Printing-out gelatine chloride paper. He said that for several months past he had been in the habit of using Imperial P.O. paper obtained from a local firm and found it all he could wish. Running out of stock, he had ordered a fresh supply, but the dealers had also run out of stock and therefore sent a supply of another kind; this however was not pointed out, and the colour of the wrapper being exactly the same the Secretary did not notice that it was not his favourite paper but printed some two dozen prints and set to work to tone these and a batch of two dozen or so that

had been printed some days before on the Imperial paper. The *new* paper began to melt and frill in the second washing water and eventually the whole of the prints on this paper had to be thrown away, while those on Imperial paper went safely through all the operations with water at ordinary temperature (about 80°). The prints were shown at the meeting and it was seen that the frilling was of the same kind as that complained of some four years ago, when the manufacturers confessed that the particular batch of paper was in fault.

The makers of both plates and paper will be written to and the bad plates and prints sent to them for inspection.

The Secretary showed for comparison a print from the same negative on ordinary bromide paper and on platino-mat bromide paper—one smooth and one rough surface. These prints showed different results, the smooth one being quite on the surface and appearing brighter than that on the rough paper.

Mr. Dunsterville also showed some prints he had made a day or two previously upon albumenised paper sensitized and supplied by a firm in Bangalore; they printed easily and quickly and were toned in a bi-carbonate bath. The members present considered them to be very good and admired the quality of the paper.

EXTRACT.

The Artigue Method of Carbon Printing.

JAMES A. SINCLAIR, F.R.P.S.

Till quite recently the idea that satisfactory carbon prints could be made by any process without transfer was derided by most sections of the photographic press, and not without reason. The revival of the old method of printing on paper coated with bichromate of potash, pigment, and gum, in the early examples shown at exhibitions a few years ago, made the observer wonder why the experimenters should go back to an era which preceded the immense improvements of Swan, for the results were certainly very crude and notably deficient in half-tone, in fact they were what anyone practically acquainted with the process in general use must have expected; and although the later works of experienced operators, such as Demachy, of Paris, have proved that when the paper is coated by an adept very excellent results may be obtained, still it is to the modification of this process due to M. Artigue, of Bordeaux, that we must look for the fine details usually associated with photography. Artigue's process is so mobile that it affords the opportunity to obtain any result at will, either the broad effects in which detail is subservient or destroyed, or an image of the most delicate photographic nature in which the minutest details are faithfully preserved and rendered.

For the reader who has not a knowledge of carbon printing it may be advisable to give a few particulars concerning both processes in order that he may understand the points of difference between them.

All forms of carbon—or, to speak more exactly, pigment—printing are based on the fact that when gelatine, gum, sugar, starch, or other colloid bodies, are mixed with a bichromate salt and exposed to light they become insoluble. M. Poitevin, in 1885, noted the importance of this fact, and coated paper with a mixture of gum, carbon, and bichromate of potash, afterwards exposed it under a negative and then washed way the portions not acted upon by light. He thus obtained an image due to the carbon which was imprisoned in the gum. But very great difficulty was experienced by Poitevin and other early experimenters in obtaining perfect prints. They found that where the light had only acted partially, such as under the half-tones of a negative, the image was washed away. This was caused by the light rendering the gum insoluble on its surface, but it was only in the deepest shadows that it penetrated right through the compound to the paper support, and it was therefore only in those pieces that the image adhered when the print was placed in water to wash away the soluble portions.

How to preserve this delicate image was now the great problem. Fargier in France was the first to make any suggestion of real value. He coated the surface with collodion, so that when the image left the paper this collodion acted as a support, but of course an extremely fragile one. To our countryman, Swan, belongs the honour of discovering a method which made the carbon process commercially practicable. He fastened the actual surface which had been in contact with the negative to a final or temporary support, and developed the image from the other side, where the pigmented gelatine which be used for coating the paper was still soluble. It is Swan's process which is in general use to-day, and full particulars of which will be found in the numerous text books on the subject.

From the foregoing brief description it will be surmised that any method of effectual carbon printing without transfer is likely to be a somewhat difficult one. To a great extent, however, the difficulty lies in obtaining an even coating of pigmented compound of such a nature that the surface looks perfectly dense in colour when viewed by direct light, but at the same time appears translucent by transmitted light. It is necessary that the light can penetrate the pigment to its support, for in this form of carbon printing we remove some only of the minute particles of colour in the half-tone and leave others in varying proportions, which, showing against the white of the paper, render the various gradations of the negative. The necessity of coating the paper in this manner was insisted upon by Blair many years ago, and it is interesting to note that the material prepared by Artigue conforms exactly to this standard.

Artigue paper is of a fine texture, coated on one side with a warm black pigment which is very easily damaged by careless handling, and which should be touched as little as possible. It is sold in an insensitive state and will keep indefinitely.

SENSITIZING THE PEPER.

1st method: Sensitizing by immersion.—This is the method of sensitizing which I strongly recommended, at least for all sizes up to 15×12. To have to sensitize a paper deters many workers from trying a process, but in this case the procedure is very simple and is not much more difficult than immersing a sheet of note-paper in a dish of water. The sensitizer consists of a two per cent. solution of bichromate of potash, and a porcelain dish, a little larger than the sheet to be sensitized, is filled with this solution to the depth of at least an inch. Holding the paper carbon side upwards, fully extended between both hands, we plunge it under the liquid. The solution as a rule takes very kindly to the surface, and it is rare for bubbles to be formed, but should they appear, do not attempt to remove them with the finger or a brush, but withdraw the sheet and again pass it under the liquid. The slightest touch on the surface will remove the pigment. At the end of two minutes, place clips on one end of the sheet, withdraw from the solution and hang up to dry in a cool and dark place. The bichromate solution may be used for a number af times, but it is important that the temperature does not exceed 58° or 60° F. A good plan is to sensitize the tissue at night by gaslight, dry in the dark and it is ready for use the following morning. It is desirable that the paper should be freshly sensitized. It will keep for two or three days, but development is much more rapid when the paper is fresh.

No difficulty will be found in carrying out the above instructions in the spring, autumn or winter, but in the summer a number of precautions must be taken or failure is inevitable. If the temperature of the sensitizing solution is much over 60° F., the pigment will have a tendency to dissolve. If the drying-room is not cool the sensitiveness of the paper will be greatly increased, producing exaggerated contrasts and deceiving the operator as to time of exposure, and, in drying, the pigment will become detached in flakes from the gelatine substratum. To avoid these disasters we may place the bottle of bichromate solution in a pail of iced water before use, somewhat shorten the time that the paper is in the bath, and preferably by sensitizing in the cool of the morning and with a weaker solution—one per cent., for example. In winter we may also use a one per cent. solution, but the paper is then only half the normal sensitiveness. The two per cent. solution is therefore recommended for ordinary temperatures, unless we are printing from very thin negatives. I have sensitized paper in a two per cent. solution for one minute, and a one per cent. solution for two minutes, and found the sensitiveness exactly the same, but the sensitiveness was doubled by immersing in a two per cent. solution for two minutes, or a four per cent. solution for one minute

To obviate defects due to elevated temperatures Artigue has recently recommended the addition of five or ten per cent. absolute alcohol to the bichromate solution. This certainly acts very well when fresh, but there is a danger that keeping the solution may lead to the decomposition of the bichromate salt and spoil it as a sensitizer.

2nd method: Sensitizing from the back of the paper.—This plan is not recommended if the immersion method can be adopted. The sheet of paper is laid carbon side downwards on a piece of glass a little smaller than itself, and to which it is held by clips at the corners. It is advisable to support the glass an inch or so above a tray, which will catch any droppings from the sensitizing solution. With a large flat brush a five per cent. solution of bichromate of potash should be spread evenly over the paper, raising the clips at the corners, one by one, to allow of its expansion on the surface of the glass. At the end of ten minutes shake the brush vigorously and pass it over the surface in order to absorb any surplus solution. To complete the operation and render the sensitiveness of the paper the same throughout, cover all up with a wooden box for half an hour, then remove the paper to the dark-room and hang up to dry.

PRINTING.

The beginner in carbon work usually approaches the operation of printing with considerable trepidation. To print on a surface where nothing is visible seems on first thoughts a very difficult matter, althaugh in reality the trouble is purely imaginary. Of course, it is necessary to use some means for measuring the quantity of light falling on the negative and numerous actinometers have been devised for this purpose. Any of those in use for the ordinary carbon process are suitable for Artigue paper. Possibly the simplest method is to take another negative of about the same density as the one we wish to print in carbon and place behind it a strip of silver paper; expose the two negatives simultaneously, and when the strip of silver paper is about half or one-third as dark as required for toning, we may consider the carbon print finished. The Artigue paper when normally sensitized requires about one-third the exposure of a silver print.

A good and simple form of actinometer has been devised by Artigue. It consists of a lath of wood and a strip of glass. The lath of wood, 9 inches long by $1\frac{3}{4}$ inches broad, is covered with paper, and has at one end thirteen lines drawn transversely across it, each one-eighth of an inch apart, and numbered from o at the bottom to 12 at the top. The strip of glass, $8 \times 1\frac{3}{4}$ inches, is covered with black paper to within three-quarters of an inch of one end. Ordinary white writing paper is immersed for two or three minutes in a five per cent. solution of bichromate of potash, and dried in the dark. We cut a strip off this sheet of paper which is now of a yellow colour and sensitive to light, and place it between the glass strip and wooden lath, so that about an inch of it is exposed when the edge of the black paper on the glass strip is just over the line marked "o" in the scale. A couple of umbrella rings round the glass and lath bind them firmly together.

Daylight is now permitted to act on the actinometer and it will be observed that the exposed portion of the bichromated paper rapidly darkens to a brownish colour, and then all action ceases. We must now make a pencil mark at the lower edge of the darkened part, for this forms the starting point from which our exposures are made.

The negative requires no preparation, and for the information of old carbon printers I may state that a "safe edge" is not necessary. The Artigue paper is placed with the pigmented side in contact with the negative in an ordinary printing frame, and is then exposed at the same moment as the actinometer. Supposing we are using the Artigue actinometer as herein described, an ordinary negative of medium density would need to be printed four tints, a dense or yellow one, eight tints or thereabouts. The method of working the actinometer is as follows. On exposing the printing frame we pull the paper in the actinometer upwards, so that the pencil mark at the junction of the exposed and unexposed portions comes against line marked "1." Immediately the yellow band between the lines o and 1 has darkened to the depth of the previously exposed portion we say that one tint has been printed. Again pulling the strip forward till the pencil mark reaches line 2 on the scale, another band of yellow makes its appearance, and this in turn darkens as before, which makes the exposure of the negative two tints. The operation is repeated for any number of tints required. When the tint decided on is reached the print is withdrawn for development

DEVELOPMENT.

With the exception of the special sawdust prepared by Artigue most of the materials required in development will be found in every amateur's dark-room. They consist of:—

1. A basin.
2. A packet of the prepared sawdust.
3. Some dishes.
4. A piece of glass, a little larger than the print to be developed.
5. A thermometer.

We commence operations by arranging these materials on our table in the following order:—

1st. A dish of cold water.
2nd. A dish of water at a temperature of 82 °F.
3rd. The basin containing a mixture of sawdust and water, which should be quite homogeneous and of a good thick pea-soup consistency. The temperature of this should be 64° to 70° F. In summer the water which comes from the main will usually be found of a satisfactory temperature.
4th. A large dish of cold water.

Taking the print from the frame we rapidly plunge it, pigment side upwards, into the dish of cold water. If it is pushed under the surface, there will in all probability be an entire absence of bubbles, but in the event of their occurring they must be removed by pouring water on them, otherwise black spots will appear in the prints. In the case of normal exposures the print is withdrawn from the cold bath immediately and transferred to the warmer one at 82° F. After some moments immersion, we see the image begin to vaguely appear as a silhouette, and when this takes place the print is withdrawn and laid on the piece of glass, being held at one end by two clips.

Development is now proceeded with by holding the glass supporting the print in an almost vertical position over the basin of sawdust solution at 70° F., and pouring the mixture down its surface by means of a measure or other receptacle.

The print should be reversed and the mixture poured over the surface from different directions in order to ensure even development.

It will soon be observed that the pigment begins to leave the print where light has not acted, but as the sawdust clings to the surface and prevents critical examination we must rinse it in cold water from time to time in order to note progress. The sawdust acts like a very fine file and if it is desired to develop one portion more than another we can do so by pouring the mixture on to that spot and by altering the position of the glass, so that the sawdust strikes the print with greater force. Development must be carried on until the print is very much lighter than required when finished, for it darkens considerably in drying.

The print being finished we give it a good rinse under a tap and immerse it in cold clean water, frequently changed, for two or three hours, in order to remove all traces of the bichromate salt and then hang up to dry.

Should the print when dry appear perfectly satisfactory, it is immersed face upwards for ten minutes in a five per cent. alum solution. This hardens and fixes the image and removes any traces of the bichromate that may still be left in the paper. Should however the print be too dark it is possible to redevelop it in sawdust mixture before immersion in the alum solution, but this cannot be done after the print is alumed.

The above particulars concerning development are such as are suitable for a properly exposed print, sensitized in a normal manner, but the worker in this process for the first time will require some indication to show him whether the print is correctly, over, or under exposed. When development commences, therefore, it is advisable to rinse off the sawdust and examine the print, for at this point the appearance of the image is greatly modified by the exposure it has received and we shall learn by its appearance to know whether the mixture should be thicker or thinner in consistency, warmer or colder in temperature. If on examination it is found that:—

1. *The high-lights and shadows are developing together*, we may conclude that the exposure has been correct and development is continued with the same solution.

2. *The high-lights come quickly but the shadows remain very black.* Either the exposure has been too much or the developing solution is too thin. The former will probably be the case so we immerse the print in cold water for about an hour. Development is then completed with a thinner solution. The longer the print is immersed in cold water the less contrast we shall obtain.

3. *The shadows come quickly but the high-lights remain flat and grey.* The print is under-exposed or the developer is too thick.

Continue the development with a thinner solution which can usually be taken from the top of the basin. If this does not appear to give the necessary brilliancy re-immerse the print for a minute or so in the water at 82° F. and then continue development with a thin solution.

From the foregoing remarks it will be understood that we have considerable command over development. For prints from hard negatives, or in cases of over-exposure, we immerse for a longer time in the preliminary bath of cold water; reduce the temperature of the second bath to 75° F.; and use the developing solution thick.

If, however, we have under-exposure, or desire to increase the contrast of the print we withdraw at once from the first bath, use the second bath warmer, say 85° F. develop with a thin solution and, if necessary raise the temperature of it to 75° F.

MOUNTING.

The prints may be placed between sheets of damp blotting paper till slightly moist and then pasted on back with starch or paste.

RETOUCHING.

The great advantage Artigue paper enjoys in the eyes of the modern school is that by means of a brush all the photographic detail may be destroyed or improved upon according to the imagination of the artist. If the operator is anxious to work in this way the print should be floated before fixing in alum in a dish containing a little water, which will form a cushion and permit of the brush being used as desired. To tone down any obstrusive lights in the print some of the colour may be taken with a moist brush from a piece of the unsensitized paper.

The particulars given in this article will enable anyone to make good prints with Artigue paper, and although I do not think that it is likely to supersede any other printing process, still it forms a very valuable addition to our means of expression, and permits of results being sometimes obtained which could not be approached by any other method.—*The Practical Photographer.*

All that is required are: (1) any close-fibred smooth-surfaced paper; (2) an ounce of starch; (3) an ounce of bichromate of potash; (4) quarter of a pound of gum arabic or a bottle of ordinary office gum; and (5) an ounce or so of lampblack. If the starch is not readily obtainable, arrowroot and even common flour will serve equally well: the bichromate of potash can be had from any dispensary for an anna or more—the price varying in inverse proportion to the conscience of the druggist—in every bazar gum arabic may be bought for a few pice; and lampblack is, I believe, sold by the colourmen at the corner of Dhurrumtollah and Bentinck Streets for six pice a packet. Commence by mixing a small quantity of the starch or arrowroot with twenty-five times its weight of water and then set the mixture on the fire till it boils. Next brush the sticky, transparent solution over the paper selected, taking care to make the layer as thin and as smooth as possible, and set the coated paper aside to dry. While the paper is drying, mix in a soup-plate a small quantity of a strong solution of gum arabic with enough lampblack to form a stiff paste, and thin the mixture down to the consistency of rich milk with sufficient ten per cent. solution of bichromate of potash. It is impossible to give more precise proportions, since the ratio of the different constituents has to be varied for each subject. By increasing the measure of gum, contrast is secured in the print, but the dose must not be excessive or the picture will be washed away in development. Conversely, by augmenting the proportion of lampblack, delicacy of gradation is obtained, but too much colour will lead to weak images. To test whether the two ingredients are in correct proportion, it is advisable, therefore, before coating the paper, to spread a little of the preparation on any waste scrap of paper and allow it to dry. If there is too much gum the surface will show a hard brilliancy; if too little, the surface be dull; and if the mixture is too thick the surface of the paper below will not show through. With correct allowance of gum, colour, and bichromate, the paper should appear a dull blackish grey; the grain of the paper showing through the coating and the surface having the dull lustre of the crude gum. When the test scraps of paper give this result take the paper to be coated and the bichromated gum mixture into the dark room for the next step, as all subsequent operations must be carried out in non-actinic light, for while the bichromated gum is in a liquid state it is not acted on by light, but once it is dry it becomes very sensitive. Begin by laying the paper down with the starched surface uppermost and with a broad soft paint brush lay down a *thin, even* layer of the bichromated gum. This will not be found very easy at first as the coating will be either too thick or the colour will appear in streaks; but practice will soon make the work perfect, and once evenness of coating is ensured every thing else will be facile. Properly coated, the grain of the paper should show through by reflected light, and the surface should appear a perfectly even grey by transmitted light. It should always be borne in mind that one of the chief elements for success is a *thin and even* coating and every effort should be made to secure this result. Assuming then that a perfect coating has been attained, the paper has to be dried quickly. For this purpose a kerosine oil stove should be used, if one is obtainable: if not, the ordinary charcoal burner or *angheti* of the bazars will do just as well. Hold the paper over the fire till the coated surface becomes bone dry, but be careful not to scorch the paper or indelible marks will result. If the paper is not thoroughly dry the printing surface will dissolve in development. The whole operation of preparing and testing the bichromated gum solution and coating and drying the paper should not take more than ten minutes at the outside, and when the paper is dry it will keep for a few days, but it is best used at once. Printing is carried on as usual, but as the surface of the paper does not show any trace of the image, the depth of printing must be timed by an actinometer or preferably by Watkins' exposure meter (an instrument that every amateur should have as an essential part of his outfit). At a rough guess, I should allow a well-exposed but brilliant negative 20 minutes in diffused light; a thin negative or one in which the shadows are very transparent might be given from five to ten minutes' exposure in diffused light; while fogged, stained and very dense negatives may receive from five minutes to quarter of an hour of direct sunlight. These exposures may be reduced or increased by using stale or fresh gum solutions, as it has been ascertained that the longer the gum solution is kept the more sensitve it becomes. In fact many workers prefer to use gum that has been kept standing until it mildews in order to secure the maximum sensitiveness. After exposure, the frame is taken into a darkened room and the print is laid face upwards in a dish of cold water for a few minutes. If the exposure has been correct the highest lights should appear slowly; if not, the water is changed frequently until it is no longer discoloured by the bichromate in the film; and after that the subsequent operations are carried out in daylight. Rock the dish for a few minutes, and if the image still hang back, add a little warm water. Should the surface still resist treatment, gently pass one of the broad camel-hair brushes used for dusting plates over the print and keep up the friction until the picture appears. Do not abandon hope as long as the coloured bichromated gum film adheres to the surface of the paper, but wait patiently, and the result will be a success. When the picture is fully out, immerse the print for a few minutes in an alum bath to remove the last trace of bichromate, and then, after careful washing, dry and mount in the usual way.—*Il Pipistrello—Journal of the Photographic Society of India.*

EXHIBITS FOR MARCH.

SUBJECT.—"*An Interior.*"

H. M. L.—Oorgaum—Arrangement good, printing and toning inefficient. Strong halation from reflected light from white wall. Oval frame and floral border detracts from otherwise good picture.

A. S. N.—Bezwada—A bromide print, with tendency to hardness, which it has been attempted to mask by over-development with consequent degradation of the whites. The print should be taken off the mount, and the damaged edge trimmed off.

Mrs. L. P.—Madras—A carefully-developed negative. The swing back of the camera has not been quite plumb, and the chiffoniere on the right looks ready to fall over. There are some small patches in the centre which have not toned correctly. Avoid touching the surface of P. O. P. with the fingers before toning is complete. The mounting is bad, for the print is almost off the mount. This is just as well for the print deserves a better mount. The red Oxford lines are ugly. In other respects the print is one of the best exhibits sent in.

J. W. C.—Madras—Both technically good and remarkably free from halation, especially the Weaving Shed. The result is worthy of something more pictorial.

L. P.—Marikuppam—Same remarks apply as to J. W. C. A difficult subject and well handled. A better subject would have earned higher marks.

N. S.—Madras—A well balanced composition, but full of halation.

A. E. W.—Ooty—Both rather hard prints, and the toning is very defective. Perspective much exaggerated and near objects distractingly huge in proportion. Beware how you use wide angle lenses.

Mrs. L. M. N.—Ennur.—The two interiors with stone figures are excellently rendered. In the drawing room scene the camera back has not been plumb so that even some of the furniture looks "inebriated." The arrangement also is defective. The oval table at the back appears to be growing out of the teapoy in the foreground, the piano, the sofa and the table behind it appear parallel and repeat the lines of the wall.

COMPETITIONS.

(*Open only to members of the Society.*)

Subject for Special Competition in May:—*An Architectural Study.*

Subject for Monthly Competitions in { May.—*A native conveyance*
{ June.—*A Horse.*

RULES.

1. *Two Special Competitions shall be held, in each year, in addition to a monthly competition.*

2. *The Committee shall select the subjects for the Special Competitions, and notice of the selected subjects shall be announced in the Society's Journal in February and in July of each year. The subject for each monthly competition shall be selected two months in advance by the members present at the monthly meeting, and shall be notified in the next issue of the Society's Journal.*

3. *Pictures, &c., competing for Prizes at the Special Competitions must reach the Secretary by the last day of January and of May, and those competing at the monthly competitions must arrive in time to be shown at the monthly meeting.*

4. *Prizes will consist of Silver and of Bronze Medals, and of Certificates of Merit.*

5. *Not more than one Silver and one Bronze Medal shall be given at each Special Competition, and one Silver and one Bronze Medal may also be given at these competitions for excellence in copying, enlarging, lantern slides, or any other special branch of photography. One Silver and one Bronze Medal shall be awarded half-yearly to the exhibitors who obtain the highest and the next highest marks respectively at the monthly competitions. The number of Certificates of Merit granted at each competition is left to the discretion of the Judges.*

6. *A member may receive only one Silver and one Bronze Medal in the special, and one Silver and one Bronze Medal in the monthly, competitions, held during the same year; but should a member who has been adjudged a medal be disqualified under this rule from receiving it, he shall be given a Special Certificate instead, marked 1st or 2nd Prize.*

7. *A Special Committee of three members shall be appointed Judges by the General Committee to carry out, subject to these Rules, all arrangements connected with the competitions.*

8. *The Special Committee shall be appointed after the Annual General Meeting in January, and shall hold office for one year, and any vacancy occurring will be filled up by the General Committee.*

9. *The Special Committee shall decide upon the merits of the pictures, &c., sent in for competition, and their decision shall be final. The system of judging the monthly exhibits shall be by awarding marks, a record of which shall be kept by the Judges, the marks being totalled and the results declared half-yearly. For this purpose, only the three highest marks awarded at each competition to each competitor shall be recorded, but not the aggregate marks gained by each for a number of exhibits.*

10. *If any member of the Special Committee is a competitor, the General Committee shall appoint a non-competing member to act as Judge at that competition instead of the competing member.*

11. *No exhibit shall compete twice, but pictures, &c., already exhibited elsewhere, may be sent in for the competitions.*

12. *Lantern slides sent in for competition shall be in sets of six, and shall be judged upon the screen.*

13. *The Special Committee shall not award any Prizes or Certificates, unless they consider the exhibits to be worthy of such distinction.*

14. *Each competing exhibit shall be the entire work of the exhibitor, and when sent in shall be accompanied by a Certificate in the annexed form:—*

> *"The (1) Arranging, (2) Exposing, (3) Developing, (4) Retouching (if any), (5) Printing and (6) Trimming and Mounting were done by me without assistance."*
>
> ______________________
>
> *Member, A. P. Socy. of Madras.*

15. *All pictures for the Special Competitions shall be mounted, and may, at the competitor's option, be framed but not glazed. Those for the monthly competitions need not be mounted, but should be trimmed.*

16. *Each competing picture should have a name or title, which should indicate the nature of the subject.*

17. *No competitor shall be allowed to send in more than six pictures to compete for any particular Prize, but the same member may compete in all branches specified in Rule 5.*

18. *The pictures gaining 1st and 2nd Prizes at the half-yearly competitions, and the best pictures sent for the monthly competitions, shall, when practicable, be reproduced in the Society's Journal.*

19. *To give up-country members an opportunity of seeing the competing pictures at the special competitions, the pictures shall be circulated to all members of the Society, not residing in Madras, who apply to see them. As this arrangement can only be carried out by the cordial co-operation of the members themselves, they are expected to forward the pictures without delay to the next member, and to send one of the accompanying post-cards to the Secretary, so that by this means the progress of the pictures may be traced.*

List of Members whose Dark Rooms are available for use by Members of the Madras Amateur Photographic Society.

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Entrance Fee, Rs. 5.—Annual Subscription, *for Resident Members Rs. 15, for Up-country Members, Rs. 12. Members joining after 30th June pay Half-year's Subscription.*

Candidates for Election—*should be proposed by one member and seconded by another; and they will be ballotted for at the following meeting.*

Ordinary Meetings—*of the Society are held on the first Friday of each month at 6 p.m. and members are at liberty to introduce visitors.*

Letters to the Editor—*should be addressed care of Messrs. Graves, Cookson & Co., Scottish Press, Mount Road Branch, Madras.*

Letters to the Honorary Secretary—*should be addressed to Morrison's Gardens, Nungumbakum, Madras.*

Letters to the Honorary Treasurer and Remittances—*should be addressed to care of Messrs. Best & Co., Madras.*

Communications regarding the issue of the Journal—*should be addressed to the Publishers.*

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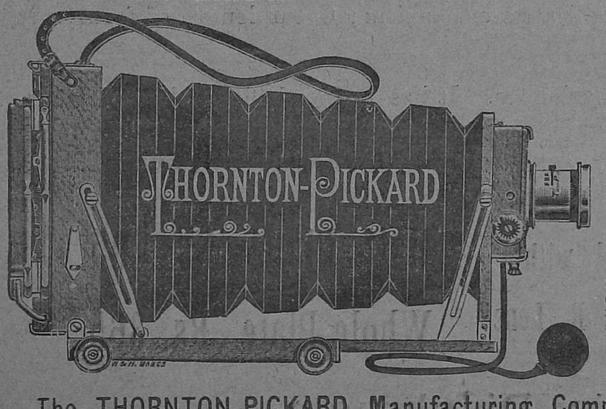

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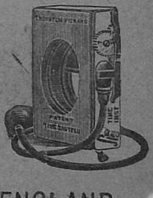

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